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Billingham Urban District Council

ANNUAL REPORT

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OF THE



Medical Officer of Health

AND

Senior Public Health Inspector

1963

BILLINGHAM URBAN DISTRICT COUNCIL

FRED M. DAWSON,
CLERK TO THE COUNCIL

TELEPHONE:
MIDDLESBROUGH 57135/8

COUNCIL OFFICES,
HAVERTON HILL,
BILLINGHAM, CO. DURHAM.

3/JP

3rd December, 1964.

Sir,

Annual Report of Medical Officer of Health and Senior Public Health Inspector, 1963.

I have pleasure in enclosing herewith four copies of the Annual Report of the Medical Officer of Health and Senior Public Health Inspector for 1963.

I am Sir,
Your Obedient Servant,

Fred M Dawson

Clerk of the Council.

The Secretary,
Ministry of Health,
Savile Row,
LONDON.

Billingham Urban District Council

ANNUAL REPORT

OF THE

Medical Officer of Health

AND

Senior Public Health Inspector

1963

Health Department,
Council Offices,
Haverton Hill,
Billingham.
June, 1964.

REPORT OF THE MEDICAL OFFICER OF HEALTH FOR THE YEAR 1963

Mr. Chairman, Ladies and Gentlemen,

It gives me great pleasure to present my 22nd Annual Report on the health of Billingham and the work in my department for the year, 1963.

All the essential data concerning health is contained in the body of my report, but there are certain items I would like to comment on here.

The Senior Public Health Inspector, Mr. Rushworth, retired in August which brought to an end our happy working association of 21 years standing. He was appointed in May, 1926, and was the first full-time Public Health Inspector for Billingham Urban District.

During the first few months of the year, the country was in the grip of the most severe winter in living memory. This harsh weather highlighted the heating problems of many homes. Adequate heating — which really means central heating — is essential to avoid harmful effects of cold, especially for infants and the elderly.

In summer there is usually only half the illness there is in winter, but in 1963 this trend was never apparent and a high level of new claims for sickness benefit was maintained during the whole year, although the January figures were lower than in 1962.

According to the Registrar General's estimate at mid-year, the population of the Urban District was 32,850, an increase of 370 on last year, which is the smallest population increase for any year since 1951, when the figure was only 50.

There has been a steady decline in the birth rate since 1958 when it was 26.9 to 22.0 in 1963. When the usual adjustments have been made however, the rate is still slightly above the national average.

The death rate of 8.1 per 1,000 population was 0.5 higher than last year and the standardised rate of 13.5 was above the national figure, which was 12.2.

In conclusion, my thanks are due once again to the Chairman, Members of the Council, to my colleagues in other departments and to all members of the staff in the Health Department

I have the honour to be,
Your obedient Servant,
L. R. BENHAM,
Medical Officer of Health.

Staff:—

Medical Officer of Health:
Lalage R. Benham, M.B., B.S., D.P.H.

Senior Public Health Inspector:
A. H. Rushworth, C.R.S.H., F.A.P.H.I.
(retired August, 1963).

R. Love, M.R.S.H., M.A.P.H.I.
(from August, 1963).

Deputy Senior Public Health Inspector:
G. Hall, D.M.A., M.A.P.H.I., A.R.S.H.
(from July, 1963).

Additional Public Health Inspector:
R. E. Lund, M.R.S.H., M.A.P.H.I.

Clerks:

R. Watson, A.R.I.P.H.H.
D. M. Baker.
A. L. Blane.
A. J. Featham.
A. Walton.

Population

The resident population of the Urban District at mid-year was estimated by the Registrar General to be 32,850. My figures have been calculated on this basis according to normal and previous practice.

The table below shows the increase in population from year to year since 1952. This year the increase is the smallest since then.

Year	Population	Increase from previous year
1963	32,850	370
1962	32,480	600
1961	31,880	2,400
1960	29,480	710
1959	28,770	680
1958	28,090	660
1957	27,430	950
1956	26,480	810
1955	25,670	600
1954	25,070	670
1953	24,400	400
1952	24,000	50
1951	23,950	

Births

The total number of live births registered during the year was 724 (350 males and 374 females), an increase of 3. Last year's figures were 721 (376 males and 345 females).

The crude birth rate was 22.0 per 1,000 population. The standardised rate (i.e. when adjusted for age and sex distribution of the population) was 19.6, the comparability factor being 0.89.

There were included in the total number of live births 40 illegitimate births (19 males and 21 females). This was an increase of 11 on last year. This was exceptional, as Billingham has usually a low illegitimacy rate.

Illegitimate Births in Billingham over the past ten years:—

	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
Total	12	25	22	28	27	23	33	17	29	40
Rate per 100 live births	2·4	3·9	3·3	4·0	3·6	3·2	4·3	2·3	4·0	5·5

Still Births

There were 13 still births (8 males and 5 females), making the rate per 1,000 total live births 17.9. Last year's figures were 12 (7 males and 5 females) with a rate of 16.7.

Deaths

The number of deaths registered was 266, 20 more than last year. There were 157 males and 109 females, giving a crude rate of 8.1 per 1,000 population. The adjusted rate was 13.5, the comparability factor being 1.67.

The principal causes of death were from:—

	Male	Female	Total
Coronary Disease — Angina ...	38	22	60
Other Heart Disease	10	12	22
Cancer — Various Sites	40	13	53
Vascular Lesions of Nervous System	12	21	33
Respiratory Disease	16	12	28
Other Defined and Ill-defined Diseases	15	11	26

Infant Deaths under One Year

There were 12 deaths of children under one year of age. (7 males and 5 females) giving an infant mortality rate of 16.6 per 1,000 live births.

Infant Deaths under Four Weeks

Eight children died under four weeks of age equal to 11.0 per 1,000 births (neo-natal mortality rate).

Infant Deaths under One Week

Eight children died under one week of age equal to 11.0 per 1,000 births (early neo-natal mortality rate).

Infant Deaths under One Day

Four children died within twenty-four hours of birth.

Comparison of Infantile Death Rate

Billingham 16.6. England and Wales 20.9.

The infantile death rate was 29.2 less than last year and 4.3 less than England and Wales.

Infant deaths under one day (4), one week (4) and under 12 months (4), making a total of 12 deaths, which were chiefly due to prematurity and congenital abnormalities.

Cause of Death	Under 1 Day	Under 1 Week	Under 1 Month	Total under 4 wks.	1–3 Mths	4–6 Mths	7–12 Mths	Total under 1 Yr.	Died in Hosp.	Died at Home
Prematurity ..	4	2	–	6	–	–	–	6	6	–
Congenital Abnormalities ..	–	1	–	1	–	–	1	2	2	–
Pneumonia ..	–	1	–	1	1	1	–	3	3	–
Meningitis ..	–	–	–	–	1	–	–	1	1	–
Totals	4	4	–	8	2	1	1	12	12	–

The following table gives the infant deaths in the various areas for the years 1963, 1962 and 1961. The infant mortality rates are also given, together with the births for the same periods:—

Area 1. Haverton Hill with Port Clarence and Cowpen Bewley.

Area 2. Pre-war Billingham (south of the railway).

Area 3. The new town (north of the railway).

	Infant Deaths			Births			I.M. Rate		
	1963	1962	1961	1963	1962	1961	1963	1962	1961
1. Haverton	3	7	3	170	187	168	17·6	37·4	17·8
2. Billingham S. ..	1	3	5	140	99	120	7·1	30·3	41·6
3. Billingham N. ..	8	23	5	414	435	455	19·3	52·9	10.3

The tables below show the total number of live births, infant deaths and the infant mortality rate each year for Billingham from 1944 to 1963:—

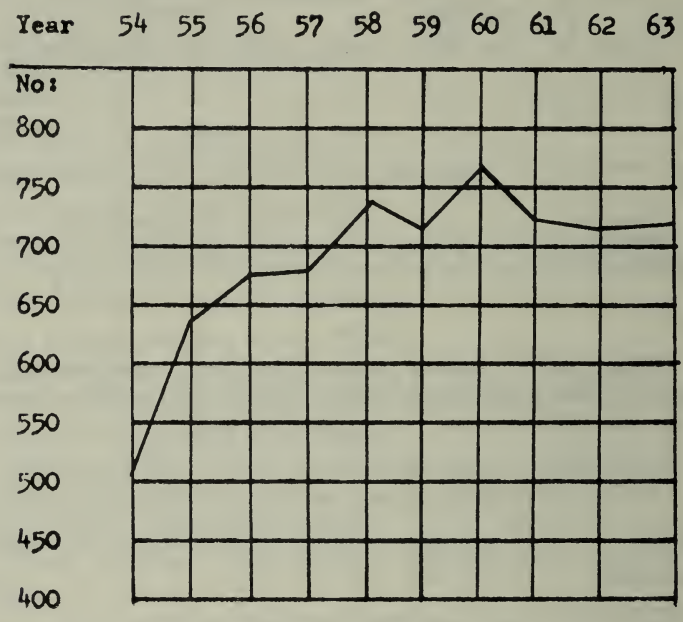
	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953
Births .. .	464	434	515	538	496	489	496	482	471	522
Infant Deaths ..	38	30	23	28	32	27	18	20	20	19
Infant Mortality Rates	81·9	69·1	44·7	52·0	64·5	55·2	36·3	41·5	42·5	36·4

	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
Births	507	637	670	697	756	709	762	743	721	724
Infant Deaths ..	24	20	21	28	18	20	22	13	33	12
Infant Mortality Rates	47·2	31·4	31·3	40·1	23·8	28·2	28·8	17·4	45·8	16·6

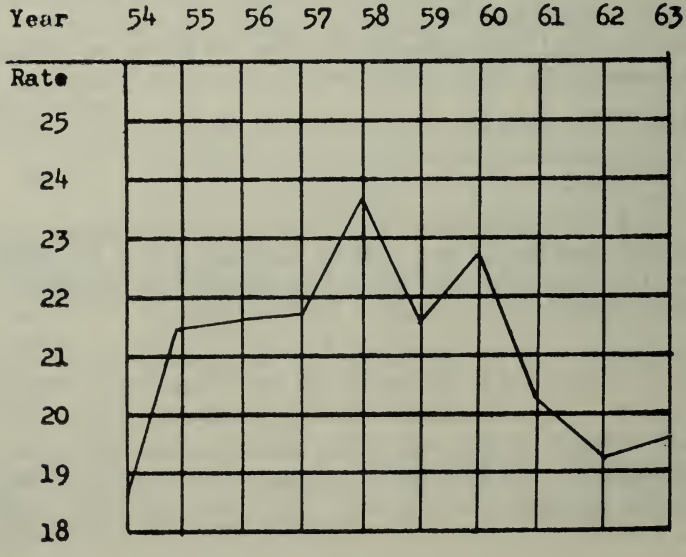
The following table is in five year periods and shows a steady decline in the infant mortality rate in Billingham, but it is still well above the figure for England and Wales, allowing for chance fluctuations:—

	1944—1948	1949—1953	1954—1958	1959—1963
Births	2447	2460	3267	3659
Infant Deaths	151	104	111	100
Infant Mortality Rates	62·4	42·4	34·8	27·4

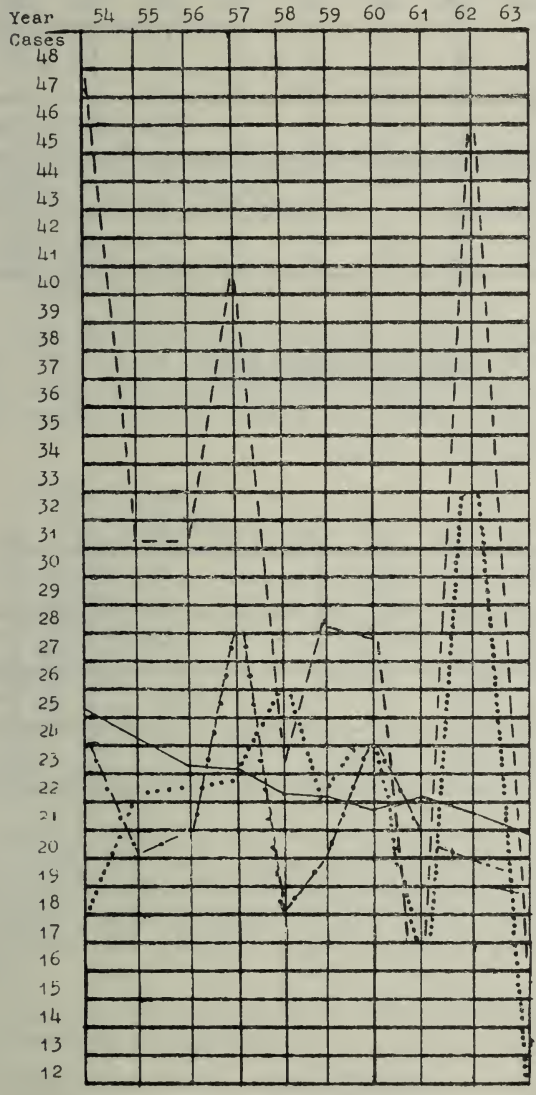
Number of births 1954 - 1963 shown graphically:-



Adjusted Birth Rate



Combined Graph of Infant Mortality and Infant Deaths



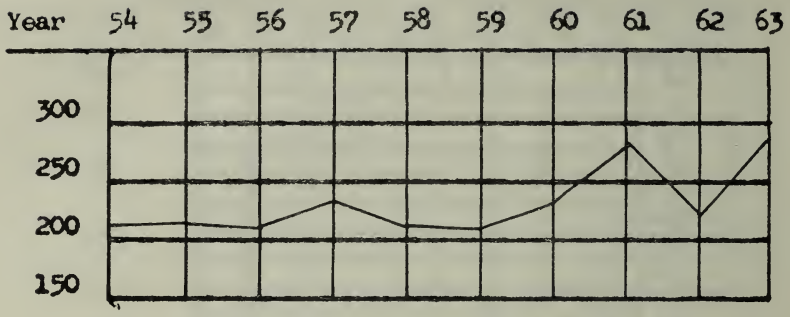
Infant Mortality Rate England & Wales _____

Infant Mortality Rate Billingham - - - - - - - - -

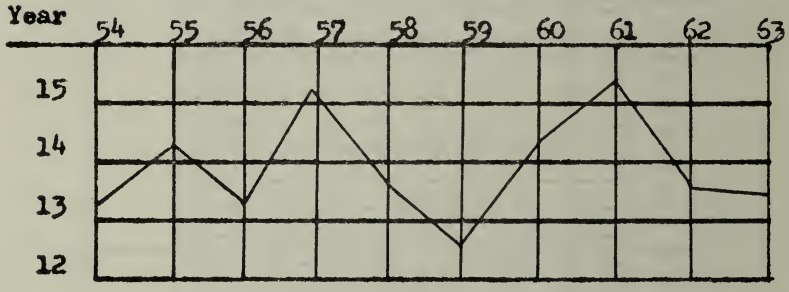
Infant Deaths

Adjusted Birth Rate —·—·—·—·—·—

Deaths



Adjusted Death Rate



Still Births

There were 12 still births in the area (8 males and 4 females). All were born in hospital. They were located in the following areas:—

Area 1.	3
Area 2.	1
Area 3.	8

Perinatal Mortality

Still births, plus deaths of infants under one month of age were 20, as follows:—

Area 1.	6
Area 2.	2
Area 3.	12

There were 724 babies born, 3 more than last year. The birth rate of 22.0 per 1,000 population was 0.2 lower than in 1962, and the majority of deaths were again people over 55 years, as shown below:—

	Male	Female	Total
Under 1 year ...	7	5	12
1— 4 years ...	2	1	3
5—14 ,, ...	2	1	3
15—24 ,, ...	2	1	3
25—34 ,, ...	5	—	5
35—44 ,, ...	7	5	12
45—54 ,, ...	24	10	34
55—64 ,, ...	36	12	48
65 and over ...	72	74	146
	157	109	266

During the year there were 724 live births and 13 still births. The ante-natal clinics were attended by 48 or only 6.6%, the lowest attendance ever recorded, while 391 babies were brought to the infant welfare clinics. Altogether 609 children aged 1 to 5 years attended clinics.

The number of persons on the register at all clinics was compiled as follows:—

Billingham Ante-natal Clinics ...	47	(— 4)
Haverton Hill Ante-natal Clinic ...	1	(— 2)
Billingham Infant Welfare Clinics	349	(+ 61)
Haverton Hill Infant Welfare Clinic	43	(— 21)
Billingham Child Welfare Clinics 1 - 5 years	541	(— 82)

Haverton Hill Child Welfare Clinic 1 - 5 years	68	(— 33)
Birth Control Clinics	4	(— 4)
Post Natal Clinics	6	(— 10)
Ultra Violet Rays	35	(— 29)
	1,094	(—124)

There was a decrease of 124 in the number on the register.

Attendances at the clinics were:—

	Billingham				Haverton Hill			
	1963	1962	Increase	Decrease	1963	1962	Incr'se	Decrease
Mothers	241	215	26	—	1	11	—	10
Infants	3341	3142	199	—	411	496	—	85
1–2 years	605	683	—	78	188	70	118	—
2–5 years	350	544	—	204	137	122	15	—
Totals	4537	4584	—	57	737	699	38	–

This shows a decrease of mothers and infants attending the clinics at Billingham. There was an increase in children 1 - 5 years attending the Haverton Hill Clinic.

The following table compares the number of live births with the number of mothers and children attending the ante-natal and child welfare clinics, also the rate per 100 births of those attending the clinics for the past ten years (percentage attendance).

Year	Births	Attending Ante-natal Clinics	Rate per 100	Attending Infant Clinics	Rate per 100	Attending Clinics 1–5 years
1954	507	290	57	237	47	534
1955	637	334	52	288	47	515
1956	670	282	42	302	45	468
1957	697	248	36	259	37	432
1958	756	175	23	293	39	414
1959	709	154	22	241	34	424
1960	762	145	19	380	50	657
1961	743	91	12	409	55	614
1962	721	54	7	352	49	724
1963	724	48	6	391	54	609

Welfare Foods

These were distributed from the following centres:

Child Welfare Clinic, Queensway, Billingham.
Child Welfare Clinic, Cowpen Lane, Billingham.
Child Welfare Clinic, Tame Street, Haverton Hill.
W.V.S. Centre, South View, Billingham.

Figures for the distribution of National Welfare Foods are given as follows, together with the distribution during 1962:—

	1963	1962
National Dried Milk — tins...	1,440	1,507
Cod Liver Oil — bottles ...	576	623
Orange Juice — bottles ...	3,370	3,179
Vitamin Tablets — packets...	362	504
	5,748	5,813

Notifiable Diseases

There were 481 notifications of infectious diseases received during the year, an increase of 184 on the 1962 figure. Tuberculosis notifications numbered 9, all of which were pulmonary.

In the following table, infectious disease notifications are given in age groups. Tuberculosis cases are dealt with separately. A table showing the notifications from 1954 to 1963 is also given for comparison:—

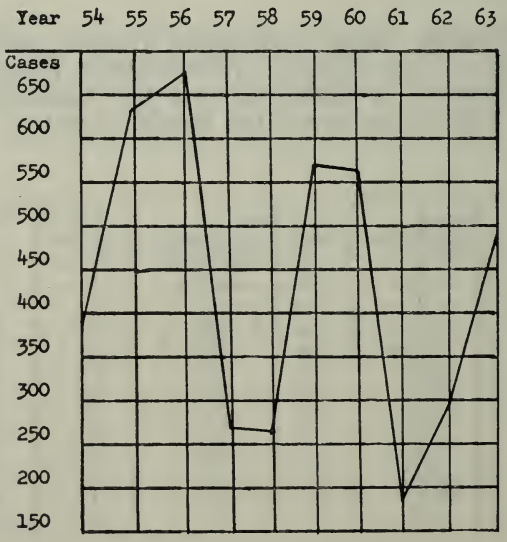
	Under One Year	Years							25 & Over	Total
		1	2	3	4	5–9	10-14	15-24		
Scarlet Fever ..	–	–	3	–	4	11	1	–	–	19
Measles	20	47	47	54	63	173	3	1	–	408
Whooping Cough ..	7	10	9	9	3	10	1	–	2	51
Dysentery	–	–	–	–	–	–	–	–	1	1
Meningitis	1	–	–	–	–	–	–	–	–	1
Pneumonia	1	–	–	–	–	–	–	–	–	1
Totals	29	57	59	63	70	194	5	1	3	481

1954 - 1963

	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
Diphtheria	–	1	–	–	–	–	–	–	–	–
Scarlet Fever ..	51	24	24	61	57	26	35	11	11	19
Whooping Cough ..	48	136	145	10	31	47	45	1	13	51
Pneumonia	15	16	9	3	1	–	1	–	—	1
Measles	257	443	488	206	188	461	457	179	261	408
Poliomyelitis (P) ..	1	–	2	6	–	4	1	–	–	–
Poliomyelitis (N.P.)	–	–	4	1	4	1	–	–	–	–
Dysentery	6	9	3	–	4	7	6	5	10	1
Erysipelas	3	4	3	2	2	1	–	–	2	–
Puerperal Pyrexia	1	–	–	1	1	–	1	–	–	–
Ophthalmia Neonatorum ..	1	–	–	–	–	–	–	–	–	–
Food Poisoning ..	–	–	–	6	–	6	–	1	–	–
Meningococcal Infection	1	1	–	–	1	–	–	–	–	1
Totals	384	634	678	296	289	553	546	197	297	481

There was one case of salmonellosis typhi-murium during the year which was not notified to my department. The case was a seven year old girl who was admitted to hospital on the 7th August and discharged on 24th August. The origin of the infection was not discovered. She made a good recovery.

The table below shows the number of notifications of infectious disease received during the past ten years.

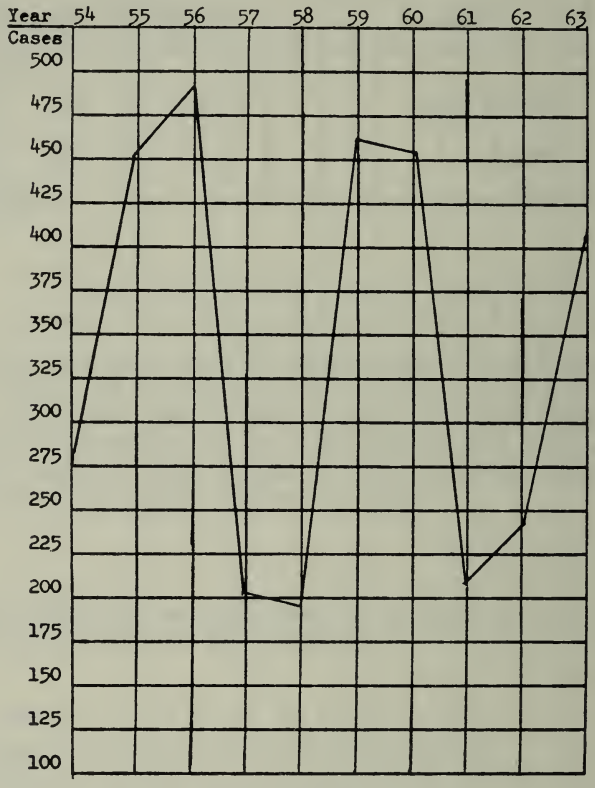


The rates per 1,000 population for Scarlet Fever and Measles are shown below.

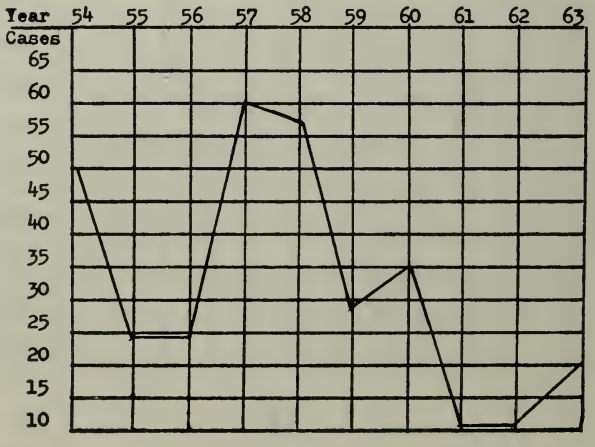
Disease	1962	1963
Scarlet Fever	0.3	0.6
Measles	8.0	12.4

The total number of notifications of Measles and Scarlet Fever are shown for the past ten years below graphically, and illustrate an alternating incidence.

Measles



Scarlet Fever



Statistics and Social Conditions of the Area

Area (acres)	10,663
Population (Registrar General's Estimate, 1963)	32,850
No. of Inhabited Houses on 31st December, 1963, according to Rate Books	9,888
Rateable Value (1st April, 1963) ...	... £2,787,316
Sum represented by a Penny Rate ...	£4,000

Vital Statistics

The following are extracts from vital statistics as supplied by the Registrar General:—

Births

	Male	Female	Total	
Legitimate ...	331	353	684	=Leg. rate of 20.8
Illegitimate ...	19	21	40	=Illeg. rate of 1.2
	350	374	724	=Birth rate of 22.0

Illegitimate Live Births (per cent. of total live births) = 5.5.

Still Births

Legitimate ...	8	5	13	
Illegitimate ...	—	—	—	
	8	5	13	=Rate of 17.9 per 1,000 births

Total live and still births = 737.

Deaths	157	109	266	=Death rate of 8.1 per 1000 population

Infant Deaths

Legitimate ...	7	5	12	
Illegitimate ...	—	—	—	
	7	5	12	=Rate of 16.6 per 1,000 live births

Perinatal Mortality

Still Births and deaths under 1 week combined ...	14	7	21=28.5

Women Dying in Consequence of Childbirth

Pregnancy, childbirth and abortion — Nil.

Causes of Death

	Male	Female	Total
Tuberculosis (respiratory) ...	2	—	2
Malignant Neoplasm — Stomach	7	2	9
„ „ Lung, Bronchus	16	1	17
„ „ Breast	—	3	3
„ „ Uterus	—	2	2
Other Malignant and Lymphatic Neoplasms ...	17	4	21
Leukaemia, Aleukaemia	—	1	1
Diabetes	1	3	4
Vascular Lesions of Nervous System	12	21	33
Coronary Disease — Angina ...	38	22	60
Hypertension with Heart Disease	1	6	7
Other Heart Disease	10	12	22
Other Circulatory Disease ...	4	2	6
Influenza	1	1	2
Pneumonia	7	9	16
Bronchitis	8	1	9
Other Diseases of Respiratory System	—	1	1
Ulcer of Stomach and Duodenum	4	—	4
Gastritis, Enteritis and Diarrhoea	—	1	1
Nephritis and Nephrosis	2	—	2
Hyperplasia of Prostate	1	—	1
Congenital Malformations ...	1	1	2
Other Defined and Ill-defined Diseases	15	11	26
Motor Vehicle Accidents	5	1	6
All other Accidents	3	1	4
Suicide	2	2	4
Homicide and Operations of War	—	1	1
Totals (all causes)	157	109	266

Tuberculosis

The following table gives the number of notifications of pulmonary and non-pulmonary tuberculosis in the different age groups. Deaths are also shown:—

Age Group	NEW CASES				DEATHS			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	M.	F.	M.	F.	M.	F.	M.	F.
0- 1	—	—	—	—	—	—	—	—
1- 4	—	—	—	—	—	—	—	—
5-14	—	2	—	—	—	—	—	—
15-24	—	3	—	—	—	—	—	—
25-34	—	1	—	—	—	—	—	—
35-44	1	—	1	—	—	—	—	—
45-54	—	—	—	—	—	—	—	—
55-64	1	—	—	—	1	—	—	—
65-up	—	—	—	—	1	—	—	—
Totals:	2	6	1	—	2	—	—	—

This gives a total of 8 notifications of pulmonary and 1 non-pulmonary tuberculosis. There were 2 deaths (pulmonary), one more than last year, but no non-pulmonary deaths.

At the beginning of the year there were 125 pulmonary cases (71 male and 54 female) on the register. The number at the end of the year was 125, as shown below:

			Males	Females
At 1st January, 1963			71	54
ADD				
New notifications			2	6
Transfers into area			—	1
			73	61
LESS				
	M.	F.		
Died	2	—		
Recovered ...	3	1		
Transferred out ...	—	3		
	—	—	5	4
			68	57

Pulmonary Tuberculosis — New Cases

Age Period	1963	1962
1- 4	—	—
5-14	2	—
15-24	3	2
25-34	1	—
35-44	1	2
45-54	—	1
55-64	1	2
65-up	—	1
Totals:	8	8

Deaths from pulmonary tuberculosis and new cases notified for the last ten years are given below:—

Year	New Cases	Deaths
1954 ...	19	1
1955 ...	8	3
1956 ...	11	1
1957 ...	6	7
1958 ...	9	4
1959 ...	9	1
1960 ...	8	1
1961 ...	6	4
1962 ...	8	1
1963 ..	8	2

Mass Radiography Unit

During 1963 the Unit visited Billingham and Haverton Hill and held public sessions.

The following table gives details of the work carried out during the survey:—

Location	X-Rayed			To Clinic			Active T.B.		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Billingham									
Town Centre	215	486	701	1	10	11	—	—	—
The Green	95	118	213	2	4	6	—	—	—
Haverton Hill	65	48	113	1	—	1	—	—	—
British Titan Products ..	428	99	527	6	1	7	1	1	2
Totals	803	751	1554	10	15	25	1	1	2

Both the notified cases reside outside the area.

Other abnormalities found in addition to the two active tubercles were:—

1 case of tubercle kept under observation at the Clinic.

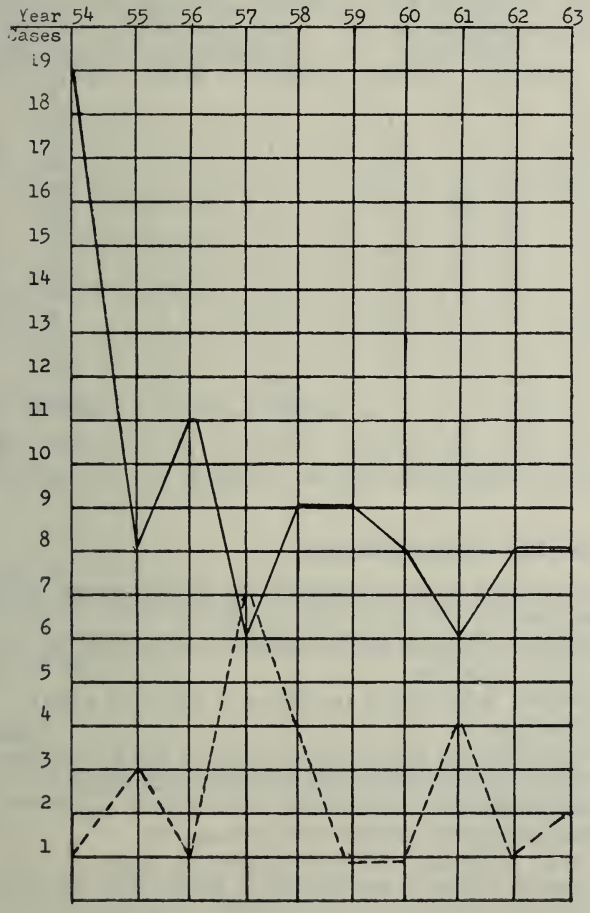
5 cases of healed tubercle which do not require any further attention.

1 pulmonary cyst.

5 cardiac abnormalities.

Pulmonary Tuberculosis

New Cases ———— Deaths ----------



B.C.G. Vaccination (in senior schools aged 11 years and upwards)

Skin Tests	517
Negative reactors who received B.C.G. Vaccination	392
Positive reactors	52
Number absent at time of reading	38

Diphtheria Immunisation

The following table has been compiled from information received from Durham County Council:—

Year of Birth	Diphtheria (Single or in Combination)		Whooping Cough (Single or in Combination)		Tetanus (Single or in Combination)	
	Primary	Booster	Primary	Booster	Primary	Booster
1949	6	4	—	1	6	1
1950	11	1	1	1	22	1
1951	13	10	1	2	2	3
1952	26	18	—	2	26	3
1953	34	37	—	3	34	4
1954	50	36	2	3	50	4
1955	39	27	1	1	39	1
1956	72	44	4	5	72	7
1957	65	83	2	17	63	18
1958	40	194	6	72	40	79
1959	9	18	9	12	8	15
1960	17	30	11	29	13	34
1961	39	77	37	72	35	76
1962	270	15	268	14	270	14
1963	165	—	165	—	165	—
Totals:	856	594	507	234	845	260

Poliomyelitis Immunisation

Poliomyelitis Immunisation in Billingham during 1963:—

Number who have received 1 injection of Salk Vaccine	270
Number who have received 1 dose of Oral Vaccine	2342
Persons given third injections of Salk Vaccine	110
Persons given fourth injections of Salk Vaccine	14
Number given reinforcing doses of Oral Vaccine after 2 doses of Salk ...	267
Number given a reinforcing dose after: 3 Salk doses or 3 Oral doses, or 2 Salk doses plus 2 Oral doses	488

Home Safety

This Committee continues to flourish and the membership and representatives of voluntary committees remains at a high level.

Great interest is taken in the area meetings. Two members attended the Annual Conference in London and a North East Area Group meeting was held at Billingham.

Every effort is made to educate people in Safety in the Home and leaflets are distributed and posters displayed throughout the area.

The following table shows cases of home accidents admitted to Stockton and Thornaby Hospital and Stockton Children's Hospital:—

Cause	Under 1 yr.		1–4		5–14		15–24		25–44		45–64		65–74		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Falls	–	–	2	3	1	–	–	1	–	–	–	–	–	–	3	4
Burns	–	–	–	1	–	–	2	–	–	–	–	–	–	–	2	1
Scalds	–	1	1	–	–	1	–	–	–	–	–	–	–	–	1	2
Cuts	–	–	–	1	–	–	–	–	1	1	–	–	–	–	1	2
Others	–	–	1	–	1	2	–	–	–	–	–	–	–	–	1	2
Totals	–	1	4	5	1	3	2	1	1	1	–	–	–	–	8	11

County Hostels for the Elderly

The number of persons maintained by Durham County Council in hostels at 31st December, 1963, was 30.

Children in Care

Children belonging to Billingham, which were in the care of Durham County Council at 31st December, 1963, numbered 48.

Morbidity

A return of new claims for sickness benefit is provided weekly under the National Health Insurance Scheme.

Monthly statistics for the year are given below. These give a weekly average of 171.4 against 126.7 for 1962, and a monthly figure of 742.7 against 548.8 last year.

Month	1963	1962
January	635	1191
February	573	510
March	905	575
April	475	573
May	401	425
June	456	373
July	478	465
August	574	341
September	522	504
October	586	468
November	798	545
December	546	626
Totals	8,912	6,596

Health Education

This is now a very important part of public health work and should be considerably expanded. A wide variety of subjects were dealt with during the year. Vigorous campaigns were carried out with lectures to various organisations by the Medical Officer; posters were displayed on poster boards throughout the area and leaflets distributed to interested bodies, including schools. Particular emphasis was placed on the hazards of cigarette smoking. The Central Council for Health Education conducted a "Smoking and Health" campaign at the Billingham Show with a mobile unit.

As time goes by the evidence of the association between cigarette smoking and lung cancer, as well as many other respiratory and cardiac diseases, becomes more conclusive, yet this highly dangerous habit is still perpetuated by so many people. An anti-smoking clinic would undoubtedly help enormously in assisting them to give it up.

Women's Voluntary Service

Miss L. Bousfield, Secretary, kindly supplied me with details of work carried out during 1963 by the W.V.S. for aged and other persons in the area as follows:—

Clothing

Various kinds were distributed to 107 needy families, a total of 348 persons being supplied. The demand for men, boys and children's clothing exceeded the supply.

Chiropody

There were 1,672 treatments given. Each treatment costs 2/6d, made up by a charge to old people of 1/9d, the remaining 9d. being subsidised by the W.V.S. This subsidy is donated by various bodies. In addition, Durham County made a grant of £40 towards this very important service.

A chiropody service is also run from the Darby and Joan Club, Cotswold Crescent, which has no connection with the W.V.S. Here the number of treatments given was 603. Each treatment costs 2/6d, made up by a charge to old people of 1/6d and the remaining 1/- being subsidised by the Darby and Joan Club. The subsidy like that of the W.V.S. is made up by donations from various bodies. Durham County made a grant of £20.

The Nursery, Tame Street, Haverton Hill

A table showing the attendances is given below:—

Month	Days Open	Total Attendances	Daily Average	Daily Maximum
January ..	22	383	17.4	17
February ..	20	266	13.3	13
March ..	21	446	21.2	21
April ..	20	448	22.4	22
May ..	23	541	23.5	23
June ..	19	435	22.9	23
July ..	23	532	23.1	23
August ..	21	390	18.6	18
September ..	21	398	18.9	19
October ..	23	509	22.1	22
November ..	21	394	18.8	19
December ..	20	377	18.9	19

There were no epidemics during the year, and the children were mostly in good health.

Children are given pre-school education, which includes painting, clay modelling, singing and dancing, and are also taught food habits and to dress themselves. The two to five year olds have three good meals a day.

Billingham and District Welfare Committee

This Committee was inaugerated in March, 1963. It is composed of members of statutory and voluntary organisations in the Urban District. It has been registered with Durham County Council as a charity.

It is predominately a committee for the elderly. Among the items of business discharged during the year an attempt was made to raise £7,000 to erect a club for the elderly residents south of the station. A number of subscriptions were received from the various organisations for this purpose.

It is hoped in the not too far distant future to establish luncheon clubs for people not covered by the 'meals on wheels' scheme.

The Rotary Club have supplied a number of flashing lights at a cost of 10/- each and these have been installed in several old people's homes. If they are successful it is hoped to expand the scheme.

Mr. D. W. Lindsay, Lecturer in Social Studies at the Stockton/Billingham Technical College, is organising a survey of old people. A number of people have volunteered to help him with this, but more are needed to make the survey a success.

CANCER DEATHS—1954—1963

	1954		1955		1956		1957		1958		1959		1960		1961		1962		1963		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Neoplasm—Lung, Bronchus	8	–	6	1	6	3	17	1	11	2	8	–	16	–	12	1	13	3	16	1	113	12
„ —Stomach	6	2	5	4	6	3	5	2	3	3	6	8	3	9	4	4	6	5	7	2	51	42
„ —Breast	–	8	–	–	–	–	–	1	–	4	–	3	–	–	–	4	–	4	–	3	–	27
„ —Uterus	–	4	–	3	–	–	–	3	–	3	–	1	–	2	–	2	–	2	–	2	–	22
Other Malignant and Lymphatic Diseases	14	7	11	13	4	7	14	5	12	5	15	9	11	12	15	20	14	8	17	4	127	90
Leukaemia and Aleukaemia	1	–	1	1	1	1	–	–	–	–	1	1	2	–	1	–	–	–	–	1	7	4
Totals:	29	21	23	22	17	14	36	12	26	17	30	22	32	23	32	31	33	22	40	13	298	197

The above table shows male and female cancer deaths (various sites) each year.

GENERAL PROVISIONS OF HEALTH SERVICES FOR BILLINGHAM

Hospitals

These are under the control of the South Tees-side Hospital Management Committee and the North Tees Hospital Management Committee. Treatment of patients from the Urban District is available at hospitals at Middlesbrough, Stockton and Sedgefield.

Infectious Diseases

Cases are admitted to West Lane Hospital, Middlesbrough.

Tuberculosis

The main hospital for tuberculosis is the Poole Hospital, Middlesbrough. Clinical treatment and X-ray are carried out at the Chest Clinic, Bowesfield Lane, Stockton.

Venereal Disease Clinic

This is held at the Stockton and Thornaby Hospital as follows:—

Tuesday:
(females) 2-00 p.m. to 4-00 p.m.
(males) 4-30 p.m. to 6-30 p.m.
Saturday:
(males and females) ... 9-00 a.m. to 10-30 a.m.

Ambulance Service

This is a Durham County service and is stationed at the Ambulance Station, Grangefield Road, Stockton, telephone number 67410.

Maternity and Child Welfare Services provided by Durham County Council

There are three Welfare Centres in the area: Queensway, Cowpen Lane and The Nursery, Haverton Hill.

Ante-natal, post-natal, ultra violet ray, birth control and dental sessions are held at these centres as follows:—

Queensway Clinic, Queensway, Billingham

Child Welfare: Mondays, 9-30 a.m. to 12 noon and 1-30 p.m. to 3-30 p.m. Alternate Tuesdays, 1-30 p.m. to 3-30 p.m.

Immunisation: Alternate Tuesdays, 9-30 a.m. to 12 noon.

Ante-natal: Alternate Fridays, 9-30 a.m. to 12 noon.

Family Planning Clinic: Tuesdays, 7 p.m. to 8 p.m. (Family Planning Association).

Dental Clinic: For expectant mothers and children under five years of age — by appointment.

Cowpen Lane Clinic

Child Welfare: Wednesdays, 9-30 a.m. to 12 noon.

Ante-natal, Post-natal and Birth Control: Alternate Wednesdays, 1-30 p.m. to 3-30 p.m.

Sunlight: Wednesdays, 1-30 p.m. to 3-30 p.m.

Haverton Hill Clinic, The Nursery, Haverton Hill
Ante-natal and Infant Welfare: Alternate Wednesdays, 1-30 p.m .to 3-30 p.m.

Welfare Foods

These are obtainable on the days the welfare clinics are open and also at the W.V.S. Centre, The Green, Billingham, Wednesdays and Thursdays.

Midwives — District Nurses — Health Visitors serving the Urban District are as follows:—

Midwives

Mrs. A. Banner, 9 Chiltons Avenue, Billingham.
Mrs. J. Goodman, 38 Shadforth Drive, Billingham.
Mrs. A. N. Coltman, 239 Low Grange Avenue, Billingham.
Mrs. M. Jones, 8 Elemere Court, Billingham.
Mrs. M. Shaw, 7 Seaton Terrace, Haverton Hill.

District Nurses

Mrs. R. Clark, 102 Wolviston Road, Billingham.
Miss A. J. McEvoy, 51 Bedale Avenue, Billingham.
Mrs. H. Harris, 46 Wolviston Road, Billingham.

Health Visitors

Miss B. Allinson, 40 Jubilee Grove, Billingham.
Miss G. M. Leak, 24 Chesham Rd., Norton-on-Tees.
Miss Patterson, 4 Lexton Avenue, Acklam, M'bro.
Miss M. Smith, 7 Allandale Road, Billingham.
Miss W. Tait, 13 Wilmire Road, Billingham.

School Clinic, Queensway, Billingham

Tuesdays: 9-30 a.m. to 12 noon.
Fridays: 9-30 a.m. to 12 noon and 1-30 p.m. to 4 p.m.
School Medical Officer in attendance.

Ears: A specialist visits the School Clinic once a month and forms for appointment can be obtained at the clinic .

Ophthalmic School Clinic

This clinic is held at Queensway on Mondays by appointment, between 12-30 and 1-30 p.m. .

Residential Accommodation

This accommodation is provided for persons who by reason of age, or infirmity, are in need of care and attention. Hostels are provided throughout the County. Parkside Hostel in Melrose Avenue, is mainly for Billingham people, but there are also hostels at Greatham, Seaton Carew and Stockton.

Domestic Help Service

Through the County Scheme domestic help is provided for households where help is required on account of sickness, an expectant mother, a mentally defective, a child under school age or the aged.

June, 1964.

SENIOR PUBLIC HEALTH INSPECTOR'S REPORT FOR 1963

Mr. Chairman, Madam and Gentlemen,

I have pleasure in presenting my first Annual Report on the work of my department. During a large part of the year under review, of course, Mr. Rushworth was your Senior Public Health Inspector until his retirement in August, and I welcome this opportunity to pay tribute to him. I had the privilege to work with him as his deputy since I came to Billingham in 1951 and sincerely respected his experience, knowledge and ability.

Consequent upon my promotion, Mr. G. Hall was apointed as my Deputy, and commenced duty in July, 1963.

I should like to take this opportunity of acknowledging the efficient assistance I have received from the members of the staff, and also to express my appreciation to the Chairman and members of the Public Health and Baths Committee for their support in matters affecting my department and generally for the manner in which they have helped me to take over my new appointment.

I am,

Your obedient Servant,

R. LOVE,

Senior Public Health Inspector.

SUMMARY OF INSPECTIONS MADE AND OTHER DETAILS

Bakehouses	6
Canteens	8
Complaints Investigated	941
Drains Tested or Inspected	68
Dwelling Houses under Infectious Diseases	48
Dwelling Houses under Public Health Acts	152
Dwelling Houses under Housing Acts	36
Factories and Factories Act	35
Food	201
Fried Fish Shops	3
Interviews	132
Meat	550
Miscellaneous Sanitary Visits	45
Offensive Accumulations	33
Outworkers	1
Overcrowding	2
Premises Under Notice	32
Public Baths	77
Rats and Mice	8
Refuse Collection	376
Refuse Disposal	83
Rent Act, 1957	1
Restaurants	3
Schools	5
Shops (Food Hygiene and Shops Acts)	194
Smoke Observations	813
Smoke Control Areas	625
Stables, Piggeries and Allotments	4
Street Vendors and Hawkers' Carts	8
Tents, Vans and Sheds	1
Verminous and Dirty Premises	53
Water Samples from Public Baths	52
Water Supply	23
Works in Progress	15

NUMBER AND TYPE OF NOTICES

Informal Notices Served	169
Informal Notices Complied With	170
Statutory Notices Served	—
Statutory Notices Complied With	—

SUMMARY OF NUISANCES ABATED AND DEFECTS REMEDIED

Defective Roofs	2
,, Eavesgutters	2
,, Firebars and Fret	1
,, Paths	1
,, Water Supply Pipes	2

MISCELLANEOUS ITEMS

Defective Drains	2
,, Water Closets	1
Dustbins Provided or Renewed	357
Blocked Drains and Sink Pipes Cleared	605
Verminous Premises Disinfected	56
Books Disinfected	7

HOUSING

During the year a small Clearance Area in Clarence Street was confirmed and the properties, consisting of eight houses and two lock-up shops, demolished. In addition, one individual unfit house was closed under the provisions of Section 17, Housing Act, 1957. A preliminary survey was made of other properties in the area which may require action in the relatively near future, but the general standard of housing is good. One owner-occupier, who is reluctant to move, remains in Victoria Street, which is otherwise derelict and should receive early attention. Five Standard Improvement Grants were approved, bringing the total since the inception of the scheme to 54, consisting of 32 discretionary grants and 22 standard grants. In addition to this, the Council have approved a scheme for the purchase of houses in Bell Street, Port Clarence, for the purpose of re-development.

Consideration was given to the problem of housing incapacitated people and it was agreed to make available 24 ground floor flats on the Roseberry Estate for this purpose.

A survey was carried out by the Department of Social Studies of the University of Durham into the question of the conditions arising on the Belasis and Furness Estates, Haverton Hill, and arising from this, it was decided, in consultation with Imperial Chemical Industries Ltd., to carry out a planned demolition of parts of the Furness Estate and the Belasis Estate, rehousing the residents affected in the areas of their choice.

A new form of housing development as far as this area is concerned was introduced with the commencement of work on the construction of three blocks of multi-storey flats which will provide 225 units, to be let outside the scope of the normal housing allocation scheme. The number of houses built during the year, with the figures for the previous year shown in brackets for purposes of comparison, was as follows: —

By Local Authority	142	(64)
By Private Persons	101	(127)

OVERCROWDING

Apart from occasional investigations, this has presented no problem, and in general overcrowding does not exist in the area.

CARAVANS

There are no caravans used in the district as living accommodation.

WATER

The Tees Valley and Cleveland Water Board have now prepared a scheme for the installation of a booster pump in order to improve the water pressure in the Wolviston area. This work is expected to be carried out during 1964.

The Engineer in charge of Supply and Distribution has kindly supplied details of the methods of treatment and of the results of chemical and bacteriological examinations which are carried out regularly.

The supply to Billingham is from Long Newton Reservoir in which water from the Lartington Gravitation Supply slow sand filtration plant plus a little from Lartington Rapid Gravity Filtration Plant is mixed with approximately one third of its own volume of water from the River Tees derived supply.

The water has no plumbo-solvent action.

Treatment of the Lartington gravitation supply is by slow sand filtration followed by chlorination but some of the water entering Long Newton Reservoir was treated at the Lartington Rapid Gravity plant in which the water is decolourised by coagulation methods. The River Tees derived supply is clarified and decolourised by chemical coagulation followed by rapid gravity filtration and pH adjustment. Final sterilisation with chlorine completes the treatment. The water leaving Long Newton Reservoir is filtered through rotary microstrainers which have 160,000 apertures to the square inch, and is then re-chlorinated before passing into supply.

Bacterioligical results are summarised below:—

Long Newton Reservoir Distribution Zone Bacteriological Results

Percentage of samples giving **NO** Presumptive Coliform reaction per 100 ml.	98.4%
Percentage of samples giving **NO B. Coli** (Type 1) per 100 ml.	99.6%

Lartington Gravitation Supply from the Slow Sand Filtration Plant. — Bacteriological Results

	Ave.	Max.	Min.
Colony count per ml. on yeast extract agar after 1 day at 37°C ...	16	36	6
Colony count per ml. on yeast extract agar after 2 days at 37°C ...	23	86	7
Colony count per ml. on yeast extract agar after 3 days at 20°C ...	14	56	2
Percentage of samples giving **NO** Presumptive Coliform reaction per 100 ml.		99.7%	
Percentage of samples showing **NO** reactions for **B. Coli** (type 1) per 100 ml.		99.7%	

Lartington Rapid Gravity Filtration Plant Bacteriological Results

Colony count per ml. on yeast extract agar after 1 day at 37°C ...	2	30	Nil
Colony count per ml. on yeast extract agar after 2 days at 37°C ...	3	35	Nil
Percentage of samples giving **NO** Presumptive coliform reaction per 100 ml.		100%	
Percentage of samples giving **NO** reaction for **B. Coli** (type 1) per 100 ml.		100%	

River Tees Derived Supply from Broken Scar Works, Darlington — Bacteriological Results

Colony count per ml. on yeast extract agar after 1 day at 37°C ...	5	18	Nil
Colony count per ml. on yeast extract agar after 2 days at 37°C ...	6	34	Nil
Colony count per ml. on yeast extract agar after 3 days at 20°C ...	9	18	Nil
Percentage of samples giving **NO** Presumptive coliform reaction per 100 ml.		98.6%	
Percentage of samples showing **NO** reaction for **B. Coli** (type 1) per 100 ml.		99.7%	

SEWERAGE AND SEWAGE DISPOSAL

The provision of sewers serving the Cowpen Bewley Village area was completed during the year, so making a water carriage system available over the whole Urban District.

CLOSET ACCOMMODATION

The sewerage scheme referred to above brought about the final conversion of privy middens in Cowpen Bewley.

PUBLIC CLEANSING

The usual detailed report on refuse collection and disposal is attached to this report.

BAKEHOUSES

One of the bakery and confectionery shops in the area, previously drawing all supplies from the firm's main bakehouse in another district on Tees-side, had the rear premises converted in order to bake a certain amount locally. This brought the number of bakehouses up to three and reverses the recent trend of concentration into larger units.

SHOPS

The number and type of shops is shown below:—

Food Shops:	
Fried Fish and Chips	15
Wet Fish	3
Grocers and General Dealers ...	55
Butchers	21
Greengrocers	16
Bread and Cakes	13
Cafes and Snack Bars	8
Sweets, etc.	24
	155
Other Shops:	101
	256

During the year, the second shopping block on the Town Centre was completed and the shopping centre converted into a pedestrian-free precinct. With the motorist provided for with good car parking arrangements nearby and an attractive lay-out including a play area for children, the development has attracted considerable interest and favourable comment.

CLOSING HOURS

The law relating to the closing hours of shops remains unaltered, but there was some alteration during the year in the hours worked in some of the multiple shops due to a Union agreement whereby the staff were transferred to a five day week arrangement by way of an additional staggered half day, with some extension of opening hours on other days. These shops remain well within the permitted hours, and in general there is no desire by shop-keepers to stay open up to the limits permitted by law. Inspections made on evenings between 9 p.m. and 10 p.m., mostly on the late night, showed that only a few sweet shops remain open.

FOOD HYGIENE (GENERAL) REGULATIONS, 1960

The food shops in the area generally comply with the requirements of these Regulations and no serious problems have arisen. It has not been possible to devote time to detailed inspections of all shops, but those where a high standard is known to exist can be left when necessary for longer periods between visits in order to concentrate attention where there may be greater need for it. These days the accent is on education of food handlers rather than enforcement by other means.

REGISTRATION OF FOOD PREMISES

The number and type of food premises registered under Section 16 of the Food and Drugs Act, 1955, is given below:—

Prepacked ice cream	64
Preserved foods	14
Fried Fish	15

INSPECTION AND SUPERVISION OF FOOD

A. Milk

There has been an increasing sale of tuberculin tested raw milk in the area, although the highest proportion of the milk sold is pasteurised, with a certain amount of sterilised milk. The most attractive feature to the public of the untreated T.T. milk is its "cream line" but it is not generally realised that, while milk holding this designation is free from the bacillus which causes tuberculosis, it is not necessarily safe in all respects as a possible carrier of infection. Of particular significance is the organism Brucella abortus which causes abortion in cattle but is the cause of a disease

in humans known as undulant fever, characterised by a fluctuating temperature and with a number of possible complications. One such case was associated with milk from a particular source during the year, and appropriate action was taken to have the milk from this herd withdrawn and sent for heat treatment until all the animals had been blood-tested and the reactors removed. Undulant fever is not a notifiable disease, but when information regarding its diagnosis is made available it is one where investigations are well worth while as there is the possibility of tracing the source of infection and taking positive action.

B. Meat

The Meat Inspection Regulations, 1963, came into force on the 1st October, 1963, but as it was already the practice to inspect 100% of the carcases and offal of animals killed in the three small private slaughterhouses in the district, this has not involved any change in the arrangements of visits for this purpose. Every carcase passed as fit for food is now marked with a stamp at the time of inspection, and the method of inspection is in accordance with a standard laid down in the Regulations. The general high quality of meat produced in the local slaughterhouses continues, and the following table gives statistical details:—

Carcases and Offal Inspected and Condemned in Whole or in Part

	Cattle excluding Cows	Cows	Calves	Sheep and Lambs	Pigs
Number killed (if known)	326	7	2	1043	77
Number inspected	326	7	2	1043	77
All diseases except Tuberculosis and Cysticerci					
Whole carcases condemned	—	—	—	2	—
Carcases of which some part or organ was condemned	34	2	—	2	—
Percentage of the number inspected affected with diseases other than tuberculosis and cysticerci	10·43	28.57	—	0·38	—
Tuberculosis only:					
Whole carcases condemned	—	—	—	—	—
Carcases of which some part or organ was condemned	—	—	—	—	1
Percentage of the number inspected affected with tuberculosis	—	—	—	—	1·30
Cysticercosis					
Carcases of which some part or organ was condemned	1	—	—	—	—
Carcases submitted to treatment by refrigeration	1	—	—	—	—
Generalised and totally condemned	—	—	—	—	—

C. Other Foods

A large variety of foodstuffs are inspected, often at the request of shopkeepers for the purpose of making claims on suppliers. Regular calls are made to a wholesale warehouse to advise on the fitness of foods where they have expressed doubt and which they set aside for an opinion, and certificates are issued where necessary. The following is a list of goods condemned during the year:—

Miscellaneous Foodstuffs (tins & jars)	1484 tins
Miscellaneous Foodstuffs (packets)...	71 pkts.
Bacon and Ham	403 lbs.
Sausage	64¾ lbs.
Cooked Ham, Pressed Beef, etc ...	15 lbs.
Tinned Meat	873 tins
Tinned Fish	173 tins
Tinned Milk	215 tins
Tinned Fruit	1224 tins
Tinned Soup	173 tins
Meat Pies	82
Margarine and Butter	½ lb.
Cheese	119 lbs.
Jam, etc.	50¼ lbs.
Dried Fruit	7 lbs.
Tomatoes	300 lbs.
Fresh Fruit	5 bushels
Black Pudding	5 lbs.
Suet	4¼ lbs.

D. Adulteration

Although this is not a Food and Drugs Authority, a few routine samples of foodstuffs were obtained and submitted to the Analyst. All were reported to be of genuine quality.

PUBLIC SWIMMING BATHS

The usual information relating to attendances at the Public Baths is given below:—

	1962	1963
General Public	74,144	78,308
Use of Slipper Baths ...	988	1,151
Brine Baths	74	122
Private Sessions	2,000	476

It will be seen that there has been an increased use of the baths by the general public. The apparently large reduction in the numbers of private sessions is not a

real one, being accounted for by a change in administrative procedure whereby bookings for schools by the Education Authority are not recorded separately as individual sessions. In fact, despite the fact that the swimming bath at the Campus School is in regular use, other schools have taken up the vacant periods at the Public Baths, and the level of use for this purpose remains about the same. During the year 52 samples of water were obtained, from the swimming pool itself and the draw-off tap, and from the Campus School swimming pool, and typical results of bacteriological examinations showed negative plate counts (2 days at 37°C.) and Coliform Bacilli absent, which indicates a high degree of purity. The method of purification is by high pressure filters followed by chlorination.

AIR POLLUTION

Reference has already been made in this report, under the heading of "Housing", to the decision which has been taken to put into operation a planned demolition of parts of the Furness Estate and the Belasis Estate. This area has without doubt been affected by atmospheric conditions far worse than any other part of the district, and despite improvements carried out by local industry the problems involved are such that it was felt that people should not be expected to continue to wait for improved conditions but should have the right to live in a better atmosphere as soon as this could be accomplished. The desires of those who do not wish, for various reasons, to move away from Haverton Hill, are to be met by transfer to the parts of the Estate with a lower pollution record.

With regard to the notorious smells which have come to be known over the years by particular names, it now seems that the "cat" smell can be said to be a thing of the past, as it has been proved to have been due to the reaction between a liquid effluent to the River Tees with the de-oxygenated river in certain weather conditions, and a process of chlorination has been found to be effective in preventing nuisance. The "fish" smell also promises to be much reduced, although it was rather troublesome in the early part of the year. The new Amines plant has incorporated precautions to keep emissions down to a minimum and though it can not be guaranteed completely to avoid troubles, these should be met much less often than with the older plant.

Smells, of course, are difficult to distinguish exactly, and there is a tendency for the names of the two referred to above to be applied to other emissions, including the general mist formation arising from the reaction of ammonia from various sources with acid gases.

The anticipated improvement which was expected to reduce fumes emitted from a sulphuric acid plant proved, temporarily at least, to be a disappointment. The electrostatic precipitators which were brought into use during the summer proved to be effective only for short periods, and the firm are proceeding with further modifications in an effort to secure greater control.

Further progress was made in the domestic smoke programme. The Billingham No. 2 Smoke Control Order was confirmed during the year and is scheduled to come into operation on 1st June, 1964. Included in the area are almost 2,000 houses, about half of them Council-owned and half privately owned, and a start was made with the works of adaptation of appliances. A further area was surveyed, again consisting of about 2,000 houses, and whereas the first two areas appear to have been accepted very favourably, a petition was submitted at the survey stage on behalf of a number of residents of one estate, opposing the making of an Order. A public meeting was called, the policy explained to those who attended, and an opportunity given for their problems to be answered.

Due to technological advances in the gas industry, the pattern of supplies of smokeless fuels has undergone a change, and in August 1963 the Minister of Housing and Local Government informed authorities in the Northern Region that future Smoke Control Orders submitted would have to be based on the assumption that no further supplies of soft coke would be available. This will add to the cost of conversion of appliances considerably, although more efficient use of fuel in modern room heaters should mean economies in running costs, while the more attractive design of gas fires in recent years is tending to make this form of heating more popular. Incidental to the drive for clean air is a keener interest in better standards of heating, and this in itself is a trend long overdue in the climate of this country.

The association of authorities in the interests of clean air in the Tees-side Clean Air Committee, with the pooling of knowledge and ideas, has continued to be of great value, and, among other activities of this

Committee, one interesting exercise during the year was the production, through the Technical Sub-Committee of a Memorandum putting into perspective the problems of the changes in smoke control procedure and constructive comments for ensuring the continuation of progress.

The following is a list of the principal sources of emissions, with short notes regarding them:—

(1) **Pulverised fuel boilers.** With the very large quantities of coal consumed in these boilers it is inevitable that there is a considerable deposit of dust and grit locally, even with a high percentage taken out by de-dusting equipment, and of course this is a major source of emission of sulphur gases.

(2) **Cement works.** Emissions are controlled by cyclones followed by electrostatic precipitators. Multicyclones were taken out of use because, though they were effective themselves, they impaired the efficient working of the precipitators. It is intended to overhaul one electrostatic precipitator in 1964.

(3) **Steam Reforming Plants.** These plants, using a light distillate oil fuel, are now in operation in the process of production of ammonia, and from the point of view of air pollution are a great improvement on the old coke ovens and water gas plants, which they replace, as there is rarely any visible emission from four tall chimneys.

(4) **Water Gas Plant.** With the new Steam Reforming Plants in operation, this plant has now been closed down.

(5) **C.C.F. Plant.** This plant has presented no problems and there is a quick dispersion of emissions.

(6) **Nitro-Chalk Plant.** Emissions from this source are satisfactorily controlled and there has been no cause for complaint.

(7) **Anhydrite Plant.** No problems have arisen from the crushing and loading of this material.

(8) **Amines Plant.** Reference has been made earlier in this Report to the improvements effected in the new plant, and since further modifications were carried out there can be cause for guarded optimism although no doubt leaks will occur from time to time, and even the smallest amounts greatly diluted in air become readily apparent. Some smells were experienced at the time of dismantling

the old plant but this was, of course, of a temporary nature.

(9) **Sulphuric Acid Plant.** The anticipated improvement with the fitting of tail-gas precipitators on two older units did not materialise and further modifications are proceeding.

(10) **Paint Pigment Process.** The wash towers and precipitators have given good control over emissions from this plant, and there has been no cause for complaint. A washing system has been installed to deal with fumes from a chemical reaction and this has effected considerable improvement. The sulphuric acid plant has also been satisfactory.

(11) **Electricity Power Station.** There has been no recurrence of the serious dust and grit emissions from this source, and the use of the lower grade, high ash content, coal has been discontinued. New electro-static precipitators are being fitted at the older parts of the Station which are continuing in use due to the demand for electricity, and these should be completed in 1964.

STANDARD DEPOSIT GAUGES

Undissolved Matter and Fe_2O_3 Collected (Tons per Sq, Mile)

for Moving Five Yearly Periods. 1954-1963

Site of Gauge	Years	No. of Mths.	Undissolved Matter		Rainfall		Fe_2O_3		
			Total	Average	Total	Ave.	No. of Mths.	Total	Ave.
Crawford's Shop (Industrial)	1954–58	53	3939·12	74·32	88·89	1·68	—	—	—
	1955–59	54	3640·99	67·42	82·57	1·53	—	—	—
	1956–60	52	3438·05	66·12	91·06	1·75	—	—	—
	1957–61	47	2948·98	62·74	81·92	1·74	—	—	—
	1958–62	48	2662·87	55·56	80·20	1·67	6	23·46	3·91
	1959–63	46	2255·18	49·03	75·13	1·63	14	53·03	3·79
Council Offices (Industrial)	1954–58	56	2264·66	40·44	98·07	1·75	—	—	—
	1955–59	56	2158·90	38·55	84·43	1·51	—	—	—
	1956–60	55	1949·95	35·45	86·53	1·57	—	—	—
	1957–61	52	1692·10	36·38	79·56	1·53	—	—	—
	1958–62	48	1404·73	29·26	71·93	1·50	2	2·10	1·05
Haverton Hill Post Office (Semi-Ind.)	1961–63	25	418·15	16·73	41·06	1·64	17	39·18	2·30
35 Tibbersley Avenue (Semi-Ind.)	1955–59	52	576·70	11·09	89·54	1·72	—	—	—
	1956–60	58	651·91	11·24	109·65	1·89	—	—	—
	1957–61	58	571·06	9·84	107·75	1·86	—	—	—
	1958–62	58	513·59	8·85	106·03	1·83	6	5·02	0·84
	1959–63	58	425·23	7·33	102·51	1·77	18	17·86	0·99
Harrow Terrace (Semi-Ind.)	1962–63	11	176·12	16·01	20·00	1·82	11	39·10	3·55
Malvern Road (Residential)	1954–58	57	349·69	6·13	108·58	1·90	—	—	—
	1955–59	56	344·56	6·15	94·63	1·69	—	—	—
	1956–60	57	386·63	6·78	108·19	1·90	—	—	—
	1957–61	55	383·68	6·97	102·37	1·86	—	—	—
	1958–62	56	404·69	7·23	107·11	1·91	6	3·68	0·61
	1959–63	56	403·77	7·21	98·93	1·77	18	15·86	0·88
Field 23 (Residential)	1954–58	52	442·96	8·52	75·83	1·46	9	25·48	2·83
	1955–59	54	485·70	8·99	76·45	1·42	19	53·59	2·82
	1956–60	51	485·75	9·52	79·71	1·56	28	70·11	2·50
	1957–61	53	499·50	9·42	77·32	1·46	40	85·94	2·15
	1958–62	52	481·43	9·26	72·58	1·39	51	106·33	2·08
	1959–63	46	427·43	9·29	59·88	1·30	46	87·79	1·91
Grosvenor Road (Residential)	1954–58	57	298·46	5·24	107·89	1·89	—	—	—
	1955–59	57	325·82	5·72	100·10	1·75	—	—	—
	1956–60	56	359·08	6·41	111·72	1·99	—	—	—
	1957–61	54	365·43	6·75	105·14	1·95	—	—	—
	1958–62	55	363·70	6·61	104·86	1·91	6	4·76	0·79
	1959–63	56	371·58	6·64	105·18	1·88	17	15·99	0·94
Hostel, Melrose Avenue (Residential)	1954–58	52	330·21	6·35	96·24	1·85	—	—	—
	1955–59	59	376·03	6·37	98·23	1·66	—	—	—
	1956–60	60	422·65	7·04	110·06	1·83	—	—	—
	1957–61	59	414·99	7·03	107·69	1·82	—	—	—
	1958–62	59	408·59	6·92	105·00	1·78	6	4·66	0·78
	1959–63	58	388·69	6·70	98·56	1·70	17	18·99	1·12
26 Cornwall Crescent (Residential)	1954–58	53	517·95	9·77	102·95	1·94	—	—	—
	1955–59	60	569·52	9·49	105·92	1·76	—	—	—
	1956–60	60	598·59	9·98	117·15	1·95	—	—	—
	1957–61	60	544·38	9·07	115·48	1·92	—	—	—
	1958–62	59	473·97	8·03	112·40	1·90	6	5·66	0·94
	1959–63	59	440·46	7·46	108·99	1·85	18	21·60	1·20
109 Braemar Rd. (Residential)	1957–61	50	357·06	7·14	90·15	1·80	44	71·41	1·62
	1958–62	57	376·68	6·61	97·80	1·71	56	83·32	1·49
	1959–63	57	367·16	6·44	96·38	1·69	57	76·73	1·35
231 Braemar Rd. (Residential)	1957·61	44	385·53	8·76	84·81	1·92	38	73·98	1·95
	1958–62	49	388·98	7·94	88·51	1·81	48	85·36	1·78
	1959–63	50	351·75	7·04	85·68	1·71	50	63·06	1·26

WIND RECORD — S.W. WIND

Year	No. of months	Total percentage	Monthly percentage
1949	12	420.0	35.0
1950	12	390.0	32.5
1951	12	446.4	37.2
1952	12	440.3	36.7
1953	12	478.4	39.9
1954	12	459.7	38.31
1955	12	273.2	22.76
1956	12	270.2	22.5
1957	12	244.4	20.36
1958	12	275.9	22.99
1959	12	314.2	26.18
1960	12	306.7	25.55
1961	12	432.1	36.0
1962	12	340.2	28.35
1963	12	289.0	24.08

LEAD PEROXIDE INSTRUMENTS

Statement of the Totals and Monthly Averages, 1954-63

Site of Instrument	No. of months	Year	Expressed as mgms. of SO^3 per 100 sq. cms. per day	
			Total	Average
INDUSTRIAL				
Council Offices	12	1954	123·27	10·27
	12	1955	131·20	10·93
	12	1956	142·17	11·847
	12	1957	153·08	12·75
	12	1958	137·85	11·487
	12	1959	141·26	11·77
	12	1960	136·05	11·34
	11	1961	135·89	12·35
	9	1962	82·49	9·94
	11	1963	107·82	9·80
SEMI-INDUSTRIAL				
35 Tibbersley Avenue	6	1955	7·79	1·29
	12	1956	20·275	1·689
	12	1957	19·657	1·638
	12	1958	19·22	1·60
	12	1959	17·93	1·49
	12	1960	14·90	1·24
	12	1961	14·37	1·20
	12	1962	16·73	1·39
	12	1963	18.17	1.51

RESIDENTIAL				
Field 23, N.E. Billingham Station	10	1954	12·179	1·217
	12	1955	14·307	1·192
	12	1956	15·61	1·30
	12	1957	14·84	1·23
	12	1958	17·90	1·49
	12	1959	16·59	1·38
	12	1960	14·59	1·22
	12	1961	15·04	1·25
	12	1962	14.16	1.18
	12	1963	11·37	0·95
51 Grosvenor Road	12	1954	10·261	0.885
	12	1955	11·596	0·966
	12	1956	10·857	0·905
	12	1957	11·93	0·99
	12	1958	12·37	1·03
	12	1959	12·02	1·00
	12	1960	12·07	1·01
	10	1961	6·5	0·65
	12	1962	8.91	0.74
	12	1963	10·32	0·86
The Hostel, Melrose Aven'e	4	1954	6.78	1.69
	12	1955	18·965	1·580
	12	1956	21·77	1·814
	12	1957	20·56	1·71
	12	1958	19·94	1·66
	12	1959	18·14	1·51
	12	1960	14·54	1·21
	12	1961	16·20	1·35
	12	1962	15.28	1.27
	12	1963	16·03	1·34
109 Braemar Road	5	1957	8·43	1·680
	12	1958	17·79	1·48
	12	1959	16·28	1·36
	12	1960	12·99	1·08
	11	1961	12·40	1·13
	12	1962	14.22	1.185
	12	1963	12·70	1·06

LEAD PEROXIDE INSTRUMENTS — MONTHLY RECORDINGS, 1963

COUNCIL OFFICES—Ind.

Month	Mgms. of SO_3
January	4·76
February	2·79
March	13·39
April	9·52
May	8·10
June	7.02
July	6·53
August	11·11
September	12·20
October	18·89
November	—
December	13.51
11	107·82

Av. 9·80

35 TIBBERSLEY AVENUE—Semi-Ind.

Month	Mgms. of SO_3
January	4·12
February	2·83
March	1·52
April	0·91
May	0·81
June	0·99
July	0·63
August	0·53
September	0·43
October	1·33
November	1·69
December	2·38
12	18·17

Av. 1·51

FIELD 23 — Resid.

Month	Mgms. of SO_3
January	1·18
February	1·46
March	1·72
April	0·79
May	1·13
June	0·45
July	0·52
August	0·61
September	0·46
October	0·91
November	1·23
December	0·91
12	11·37

Av. 0·95

51 GROSVENOR ROAD—Resid.

Month	Mgms. of SO_3
January	1.74
February	2.03
March	1·08
April	0·64
May	0·54
June	0·21
July	0·11
August	0·73
September	0·26
October	0·73
November	1·14
December	1·11
12	10·32

Av. 0·86

THE HOSTEL, MELROSE AVE. Resid.

Month	Mgms. of SO_3
January	1·73
February	2·65
March	2·29
April	1·35
May	0·92
June	0·66
July	0·61
August	0·52
September	0·56
October	1·06
November	1·60
December	2·08
12	16·03

Av. 1·34

109 BRAEMAR ROAD — Resid.

Month	Mgms. of SO_3
January	1·66
February	2·03
March	1·49
April	1·06
May	0.59
June	0·50
July	0·44
August	0·40
September	0·41
October	1·13
November	1·30
December	1·69
12	12·70

Av. 1·06

VOLUMETRIC SO_2 RECORDERS AND COMBINED SMOKE FILTERS
MONTHLY AVERAGES — 1963

Month	SO_2 in Microgrammes per Cubic Metre of Air			Smoke Concentrations in Microgrammes per Cubic Metre of Air		
	Council Offices	Campus School	Billingham Nth. Sch.	Council Offices	Campus School	Billingham Nth. Sch.
January	302	127	—	223	178	—
February	388	157	—	280	195	—
March	783	117	—	202	101	—
April	434	51	57	107	48	104
May	470	28	36	88	29	74
June	274	26	45	45	15	46
July	347	18	29	45	14	36
August	364	7	23	43	18	47
September	487	37	47	73	54	67
October	1076	58	63	127	78	96
November	547	92	111	182	106	138
December	525	128	128	198	120	165

The apparatus at Billingham North School was brought into use in April, 1963, and it is interesting to compare the smoke concentrations there with the figures for the Campus School, which is included in a Smoke Control Area.

INFECTIOUS DISEASES

Disinfection of houses is carried out on request, and library books disinfected after contact with infection, but these services are less in demand than they were even only a few years ago.

VERMINOUS PREMISES

A variety of infestations are dealt with by using the appropriate insecticides. Again clover mites and cockroaches were the cause of the most numerous complaints, but the occasional bug infestation is still found.

PREVENTION OF DAMAGE BY PESTS ACT, 1949

The services of a rodent operative are shared with an adjoining Rural District Council, and by routine treatment of sewers and attention to individual complaints, a useful public service is performed and serious infestations avoided. Details of work done are shown in the following table, with the previous year's figures given for comparison:—

	1962	1963
Premises visited	165	172
Inspections made	168	180
Treatment visits	346	344
Premises treated	81	78
Major infestations found (rats) ...	—	—
Minor infestations found (rats) ...	81	69
Major infestations found (mice) ...	—	—
Minor infestations found (mice) ...	18	12
Sewer treatments	2	2
Manholes prebaited	354	349
Manhole poison takes	22	24

It will be seen that there has been little change in the scale of infestations.

FACTORIES ACT, 1961

The following table gives details of factories registered in accordance with the above Act, and inspections made:—

Part 1 of the Act

1 — INSPECTIONS for purposes of provisions as to health (including inspections made by Public Health Inspectors).

Premises (1)	Number on Register (2)	Number of		
		Inspections (3)	Written Notices (4)	Occup's Prosecuted (5)
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities	1	1	—	—
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority	57	37	—	—
(iii) Other Premises in which Sec. 7 is enforced by the Local Authority (excluding out-workers' premises)	20	9	—	—
TOTAL	80	47	Nil	Nil

2 — Cases in which DEFECTS were found

Particulars (1)	Number of cases in which defects were found				Number of cases in which prosecutions were instituted (6)
	Found (2)	Remedied (3)	Referred To H.M. Inspector (4)	Referred By H.M. Inspector (5)	
Sanitary Conveniences (s. 7) Unsuitable or defective	4	4	—	—	
TOTAL	4	4	—	—	—

Part VIII of the Act. (Sections 133 and 134).

Nature of Work (1)	Section 133			Section 134		
	No. of out-workers in Aug. list required by Sec. 133 (1) (c) (2)	No. of cases of default in sending lists to Council (3)	No. of Prosecutions for failure to supply (4)	No. of instances of work in unwholesome premises (5)	Notices Served (6)	Prosecutions (7)
Wearing apparel — Making, etc.	2	—	—	—	—	—
TOTAL	2	—	—	—	—	—

ANNUAL REPORT ON
REFUSE COLLECTION AND DISPOSAL
FOR THE YEAR 1963/1964

Mr. Chairman, Madam and Gentlemen,

I have pleasure in submitting my Annual Report on the collection and disposal of household and shop refuse.

I am pleased to report that the regularity of collection has been maintained at the improved standard referred to in last year's report. A great deal of the credit for the efficient functioning of the service is due to the foreman, Mr. Mineham, and I am grateful to him for the many ways in which he has displayed initiative and a thorough knowledge and interest in the work of the department. I should also like to express my appreciation of the manner in which the men employed in this work have carried out their duties, which are not only lacking in glamour, but which require the same attention in the worst weather as when conditions are favourable.

In conclusion, I should like to thank the Chairman and members of the Public Health Committee for their support in matters affecting this service.

I am,

Your obedient Servant,

R. LOVE,

Senior Public Health Inspector.

MANUAL LABOUR

The number of men employed and the nature of their duties is given below:—

Foreman	1
Mechanic	1
Refuse Collection and Salvage of Waste Materials	23
Refuse Disposal	1
Drivers	4
	30

The position regarding the retention of a nucleus of the right type of men was better than for some time and there has been relatively little turnover of

labour, despite the improved general employment position in the area compared with the previous year. Absenteeism was down to a very low level, and the amount of sickness remained about the same as in the previous year, although the cost was slightly higher. The following table gives details, with figures in brackets giving a comparison with the previous year:—

Sick pay		Absence
Days	Amount	Days
	£ s. d.	
691	870 7 6	33½
(686½)	(794 17 8)	(56½)

Wages amount to 74.9% of the gross cost of the service.

VEHICLES

It was suggested two years ago that the time was approaching when the size of the district would make it necessary to increase the number of vehicles to allow for the area to be divided into five rounds instead of four, but the system of operating four crews and having one spare machine has been continued. If it becomes necessary to employ more men, as further development of houses and shops takes place, the best use of manpower would not be gained unless there was a re-distribution of labour, with an extra vehicle brought into use. However, it is intended in the near future to apply work study in the department with the aid of the Council's Methods and Planning Officer, and this could have some effect in postponing the need for such action.

The vehicles in regular use are three Shelvoke and Drewry 16/18 cu. yd. fore and aft tippers, fitted with power presses, and one Dennis compression type machine, with an older Shelvoke and Drewry fore and aft tipping machine as the spare. A new vehicle is on order and should be delivered in the next financial year, when it will probably be necessary to scrap the one referred to as the spare, as it is 11 years old and in need of extensive repair.

The usual tables are given, indicating reliability, running costs and work done. Weights per load quoted are estimated figures.

RELIABILITY

Vehicle	Possible No. of hours	No. of hours lost for repairs	Percentage of hours worked
No. 1 RPT. 854	1988 (1912)	252.5 (324)	87.3 (83.1)
No. 2 218 GPT	2199.5 (2184)	116.5 (77.5)	94.7 (96.5)
No. 3 7039 PT.	2197.5 (2153)	157.5 (128)	92.8 (94.1)
No. 4 1298 UP (8 months)	2069.5 (1542)	198 (23)	90.4 (98.5)
No. 7 NUP 30	1066.5 (1305)	210.5 (241)	80.3 (81.5)
Angle Dozer	678.5 (851)	230 (323)	66.1 (62.0)
"Europa" Shovel (9 months)	1778 (1429)	393 (263)	77.9 (81.5)
Morris Van 675 BUP	1752 (1751)	40 (71)	97.3 (95.9)

RUNNING COSTS

Vehicle	Capacity cu. yds.	Total Cost	Driver's Wages	Insurance and Licences	Fuel and Oil	Maintenance and Repairs	Garage Rent
		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
No. 1 (Diesel)	19·5/25	1322 18 6	638 12 7	114 4 6	189 2 9	328 18 8	52 0 0
(1955)		(1299 16 1)	(561 14 11)	(138 4 6)	(173 4 9)	(374 11 11)	(52 0 0)
No. 2 (1960)	16/18	1456 15 10	731 13 4	108 5 8	389 7 6	175 9 4	52 0 0
		(1410 13 6)	(715 13 11)	(133 0 8)	(413 6 9)	(96 12 2)	(52 0 0)
No. 3 (1961)	16/18	1448 8 8	746 12 3	115 11 11	342 17 8	191 6 10	52 0 0
		(1352 11 3)	(707 4 2)	(138 16 11)	(359 5 10)	(95 4 4)	(52 0 0)
No. 4 (1962)	16/18	1485 1 9	655 10 6	141 11 5	363 12 7	262 7 3	52 0 0
		(1012 0 8)	(519 12 5)	(150 1 3)	278 13 3	(26 13 9)	(39 0 0)
No. 7 (1953)	16/18	994 5 10	436 18 0	93 13 10	249 3 8	157 10 4	52 0 0
		(900 6 8)	(382 3 10)	(122 13 10)	(194 9 0)	(149 0 0)	(52 0 0)
Angle-dozer (1956)	—	297 10 8	159 4 7	6 7 1	23 2 4	108 16 8	—
		(442 4 11)	(190 16 5)	(6 7 1)	(32 18 4)	(212 3 1)	—
Europa Shovel (1962)	—	841 18 10	487 2 3	21 1 4	45 8 1	288 7 2	—
		(616 7 11)	(410 15 4)	(32 0 2)	(42 12 2)	(131 0 3)	—
Morris Van (1959)	5 cwts.	131 2 9	1 9 2	26 1 6	57 15 8	32 16 5	13 0 0
		(161 0 3)	—	(27 8 4)	(56 2 6)	(64 9 5)	(13 0 0)

NUMBER AND WEIGHT OF LOADS REMOVED, MILES PER LOAD AND FUEL CONSUMPTION

Vehicle	No. of Loads	Weight per Load	Total Weight	Mileage	Fuel	Miles per Gallon	Miles per Load
		T. C.	TONS		GALLS		
Salvage			39 (41)				
No. 1	481 (434)	4 0	1924 (1736)	6570 (6133)	889 (803)	7·4 (7·6)	13·7 (14·1)
No. 2	743 (728)	3 0	2229 (2184)	9798 (10411)	1959 (2097)	5·0 (5·0)	13·2 (14·3)
No. 3	649 (686)	3 0	1947 (2058)	7848 (7945)	1716 (1815)	4·6 (4·4)	12·1 11·6
No. 4 (8 months)	728 (566)	3 0	2184 (1698)	8489 (6578)	1823 (1401)	4·7 (4.7)	11·7 (11·6)
No. 7	460 (385)	3 0	1380 (1155)	5935 (4859)	1240 (960)	4·8 (5.1)	12.9 (12.6)
	3061 (2946)		9703 (9313)	38640 (37905)	7627 (7608)		

REFUSE COLLECTION AND SALVAGE

Generally speaking the refuse collection service has operated smoothly and a regular weekly collection has been maintained. The modification of the working hours whereby the men work an extra half hour on four days of the week and finish at 2 p.m. on Fridays has proved of value in obtaining more economic final loads each day and in this way has increased efficiency. It is popular with the men, giving them a long week-end, and although there has been little need for overtime, it allows some flexibility in recovering time lost after bank holidays. The pilot scheme on the use of paper sacks has extended with the growth of the Radburn development and is reaching the stage where the teething troubles have been overcome and a proper assessment of the system can be made. I consider this to be one direction where the application of method study and work measurement could be most valuable and may be useful in indicating whether there are advantages in extending the scheme.

The limitations placed by the mills on the amounts of salvage it was possible to send have continued, and as a result it was not worth while employing full-time labour on this work.

REFUSE DISPOSAL

The provisional agreement made with a firm who offered to accept the whole of the Council's refuse and convert it into compost, thus solving all disposal problems, proved to be a disappointment. Various promises were made of aproximate dates during 1963 when the plant would be completed and the Company able to commence dealing with the refuse, but no progress was made on construction and no firm date could be obtained when the scheme would come into operation, so that there seems no point in relying on the proposal any further as a solution to refuse disposal problems.

Meanwhile, further difficulties arose at the refuse tip. The sand and gravel quarry where tipping has been proceeding is still being worked, and the quarry owner decided to dispose of his mineral rights during the year, thus involving a change in policy regarding the programme of working the quarry, which made it impossible at present to continue tipping without interfering with quarrying operations.

To meet these difficulties, Imperial Chemical Industries Ltd. kindly agreed to allow the Council temporary tipping facilities at their tip, subject to certain conditions, and the management of the tip is carried out by them. In addition, authority was given for further tipping rights to be negotiated, and a number of possibilities are being investigated.

Apart from the short term need to acquire facilities, the problem of disposal of refuse becomes more difficult as suitable sites for tipping cannot be found so easily within reasonable distances, and as refuse continues to increase in bulk, and other methods of disposal may have to be given serious consideration for the future needs of the area.

NUMBER AND TYPES OF RECEPTACLES

Dust bins	...	...	...	10,296
Privies	...	...	...	1
Ashpits	...	...	...	4

COST

Attached hereto is a copy of the Public Cleansing Costing Returns as supplied to the Ministry of Housing and Local Government. Net costs of the service are £2,400 less than the previous year, and this is mainly

due to the fact there has been very little capital expenditure. This reduction is, of course, reflected in unit costs and the cost of emptying a bin and disposing of its contents works out at 11d. Income from trade refuse is slightly down, but this is accounted for by the fact that one firm with a fairly big trade refuse problem made alternative arrangements, and while the income from salvage is a little higher than in the previous year, it remains poor compared with what it might have been had there been no restrictions.

APPENDIX I—PUBLIC CLEANSING COSTING RETURN

for the year ended 31st March, 1964

Item	Particulars 1	Collection 2	Disposal 3	Totals 4	Percentage 5
	REVENUE ACCOUNT	£	£	£	£
1	GROSS EXPENDITURE				
	(i) Labour	15,408	815	16,223	63
	(ii) Transport	7,213	1,611	8,824	34
	(iii) Plant equipment, land and buildings	296	231	527	2
	(iv) Other items	—	191	191	1
	(v) Total Gross expenditure	22,917	2,848	25,765	100
2	GROSS INCOME	274	500	774	—
3	NET COST	22,643	2,348	24,991	—
4	Capital expenditure met from revenue (included above)	408	472	880	—
	UNIT COSTS	s. d.	s. d.	s. d.	
5	Gross cost per ton, labour only	31 9	1 8	33 5	
6	Gross cost per ton, transport only	14 11	3 4	18 3	
7	Net cost (all expenditure) per ton	46 8	4 10	51 6	
		£	£	£	
8	Net cost per 1,000 population	689	71	760	
9	Net cost per 1,000 premises	2,156	224	2,380	

OPERATIONAL STATISTICS

10	Area (statute acres) — land and inland water	10,663 acres
11	Population at 30th June, 1963	32,850 persons
12	Total refuse collected	9.703 tons
13	Percentage of total refuse collected which is weighed	Nil%
14	Weight (cwts.) per 1,000 population per day (365 days to year)	16·2 cwts.
15	Number of premises from which refuse is collected	10,500 premises
16	Premises from which collections are made at least once weekly	100% of total
17	Average haul, single journey, to final disposal point (including nil miles by secondary transport)	5½ miles
18	Kerbside collection expressed as estimated percentage of total collection	Nil%
19	Total refuse disposed of (of which nil tons were disposed of for other local authorities)	9,703 tons
20	Method of disposal (Salvage included)	
	(a) Crude tipping	Nil%
	(b) Controlled tipping	100%
	(c) Separation/controlled tipping	Nil%
	(d) Direct incineration	Nil%
	(e) Separation and incineration	Nil%
	(f) Other methods (state nature)	Nil%
		100%

		Income (included in Item 2)	Tonnage Collected (inc. in item 12)
21	Salvage. Analysis of income and tonnage:	£	tons
	(a) Raw Kitchen Waste	—	—
	(b) Scrap Metal	—	—
	(c) Waste Paper	345	39
	(d) Other Salvage	—	—
	(e) Totals	345	39
22	**Trade Refuse**		
	(a) Income	£411	
	(b) Tonnage	206 Tons	

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